corresponding shift in flat band magnitude may be obtained by replacing the gate region 510 material or by changing the dopant levels in the substrate 502 and channel area 508.

IN THE CLAIMS

An election to prosecute the claims of Group I, namely claims 1 through 7 and 15 through 19, has been made. The claims of Group II, namely claims 8 through 14, are withdrawn without prejudice at the present time.

Presented below are all of the non-withdrawn pending claims in a clean, un-marked format. Claims that have not been amended are included with the notation "Unamended".

1. (Unamended) An apparatus, comprising:

a metal-oxide-semiconductor transistor with a shifted flat band magnitude;

a gate electrode coupled to said metal-oxide-semiconductor transistor and to a positive voltage source; and

a source electrode, a drain electrode, and a substrate electrode coupled to each other and to a negative voltage source.

2. (Once amended) The apparatus of claim 1, wherein said metal-oxide-semiconductor includes a gate region material with a work function less than -0.56 volts.

3. (Once amended) The apparatus of claim 2, wherein said gate region material is platinum silicate.

4. (Once amended) The apparatus of claim 2, wherein said gate region material is selected from the group consisting of tantalum nitrate, iridium, nickel, and arsenic.

5. (Unamended) The apparatus of claim 1, wherein said metal-oxide-semiconductor transistor includes a heavily-doped substrate area.

6. (Unamended) The apparatus of claim 1, wherein said metal-oxide-semiconductor transistor is a p-channel device.

7. (Unamended) The apparatus of claim 1, wherein said metal-oxide-transistor is an n-channel device.

15. (Unamended) An apparatus, comprising:

means for shifting a flat band magnitude in a metal-oxide-semiconductor transistor;

means for coupling a gate electrode of said metal-oxide-semiconductor transistor to a positive voltage source; and

means for coupling a source electrode, a drain electrode, and a substrate electrode of said metal-oxide-semiconductor transistor to a negative voltage source.

16. (Once amended) The apparatus of claim 15, wherein said means for shifting includes a gate region with a material whose work function is less than – 0.56 volts.

17. (Unamended) The apparatus of claim 16, wherein said material is platinum silicate.

18. (Unamended) The apparatus of claim 16, wherein said material is selected from the group consisting of tantalum nitrate, iridium, nickel, and arsenic.

19. (Unamended) The apparatus of claim 15, wherein said means for shifting includes a substrate which is heavily-doped.